# Microsoft Excel and Metrics Reporting Skills in Research and Clinical Trials

# Course Outlines

### Introduction and Intermediate Microsoft Excel

#### Duration: 4 hours

**Pre-requisite:** Have attended the Basic Computer Training session or have a strong knowledge on using the mouse and the Windows environment.

In this session, participants will learn to:

- Understand the concept of a spreadsheet
- Navigate around a spreadsheet
- Create a workbook
- Select a range of cells
- Format cells
- Merge and centre cells
- Wrap text cells
- Cut, copy and paste cells
- Use the Format Painter option
- Understand and use the AutoFill
- Adjust row height and column width
- Adjust row height and column width Understand BEDMAS
- Create equations applying the BEDMAS rule
- Understand and create basic formulas
- Use the AutoSum feature (SUM function)
- Learn to use basic functions such as AVERAGE, COUNTNUM, MAX and MIN)
- Alter the page margins of a worksheet
- Create, rename and move worksheets
- Save a workbook
- Close and reopen the document
- Insert and delete additional columns or rows into the worksheet
- Create a basic chart (such as a Line, Column or Bar chart)
- Understand Conditional Formatting
- Understand the concept between relative and absolute referencing
- Create percentage equations
- Use COUNTIF, COUNTIFS, SUMIF and SUMIFS formulas
- Use MEDIAN, CONCATENATE, LEFT, RIGHT, UPPER, LOWER, PROPER and CONCATENATE formula
- Use Date and Time formulas

### Intermediate and Advanced Microsoft Excel

#### Duration: 4 hours

**Pre-requisite:** Participants must have attended the Introduction and Intermediate Microsoft Excel session or have equivalent skills.

In this session, participants will learn to:

- Create 3-D formulas
- Create a dataset
- Create filters and subtotals to your dataset
- Remove duplicates in a dataset
- Use the Split Screen feature
- Use the Conditional Formatting feature
- Use the Freeze Panes feature
- Use the Data Validation feature
- Protect your worksheets
- Transpose your spreadsheet
- Create an IF, nested IF and IFS formulas (i.e. equations)
- Use the VLOOKUP and XLOOKUP formulas to merge 2 datasets together
- Use the Name Range feature in Excel
- Create macros in Microsoft Excel
- Assign macros to toolbars and as shortcut keys in Microsoft Excel
- Use the Goal Seek feature in Microsoft Excel
- Use the Solver feature in Microsoft Excel

## Microsoft Excel Charts and Pivot Tables

#### Duration: 4 hours

**Pre-requisite:** Participants must have attended the Introduction and Intermediate Microsoft Excel session or have equivalent skills.

In this session, participants will learn to:

#### Excel Charts

- Create a basic chart
- Use the Instant Chart feature to create a chart
- Use the Recommended Chart feature to create a chart
- Use the Chart Elements, Layouts, Colours & Styles
- Use the Chart Formatting Options
- Change chart types & adding a secondary axis
- Create Bar & Column Charts
- Create Line Charts & Trendlines
- Create Area Charts
- Create Pies, Donuts & Race Tracks charts
- Create Scatter Plots
- Create Bubble Charts
- Create Radar Charts
- Create Basic Combo Charts
- Create sparklines charts
- Create, modify & apply Custom Template chart

#### **Pivot Tables**

- Use the Recommended Pivot Tables feature
- Create a Pivot Table from Scratch
- Use the Pivot Table Ribbons and Fields
- Pivot the fields in a pivot table
- Add multiple dimensions
- Delete fields from Pivot table
- Create calculations (i.e. sum, average, max, min) in a pivot table

- Group and ungroup data in a pivot table
- Subtotals and Grand Totals in a pivot table
- Choose a Report Layout in a pivot table
- Update the data tables and refresh the pivot table
- Change the data source linked to the pivot tables
- Create multiple pivot tables
- Filter pivot table data using the Report section
- Create slicers to help assist filtering the pivot table
- Create a chart (i.e. pivot chart) from a pivot table



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